26.   (New) A method according to claim 24, wherein the reagent is an agent capable of killing cells.

27.   (New) A method according to claim 24, wherein the reagent is a diagnostic reagent.

28.   (New) A method according to claim 24, wherein the reagent is coupled to MAL by conjugation.

29.   (New) A method according to claim 24, wherein said reagent is coupled to MAL by covalent bonding.

30.   (New) A method according to claim 29, wherein the said reagent is covalently bonded to MAL by way of a linking or spacer group.

31.   (New) A method according to claim 24, wherein said reagent comprises a polypeptide or protein, wherein said polypeptide or protein is fused to MAL.

32.   (New) A method according to claim 26, wherein said reagent is a cytotoxin.

33.   (New) A method according to claim 32, wherein the cytotoxin is selected from the group consisting of a chemotherapeutic reagent, a microbial toxin and a monoclonal antibody.

34.   (New) A method according to claim 27, wherein said reagent comprises a labeling agent.

35.   (New) A method according to claim 34, wherein the labeling agent is selected from the group consisting of biotin and a radioactive label.

36.   (New) A method according to claim 35, wherein the labeling agent is a radioactive label selected from the group consisting of ^{125}I, ^{14}C and ^{35}S.

37.   (New) A protein complex comprising an oligomeric form of α-lactalbumin (MAL) and a cytotoxin, wherein said cytotoxin is active in the nucleoplasm of cells.

38.   (New) A protein complex according to claim 37, wherein said cytotoxin is a microbial toxin.

39.   (New) A protein complex according to claim 37, wherein said cytotoxin is a chemotherapeutic agent.

40.   (New) A protein complex according to claim 37, wherein said cytotoxin is a monoclonal antibody.

41.   (New) A protein complex comprising an oligomeric form of α-lactalbumin (MAL) and a labeling agent.

42.   (New) A protein complex according to claim 41, wherein the labeling agent is biotin or a radioactive label.

43.   (New) A protein complex according to claim 42, wherein said labeling agent is a radioactive label selected from the group consisting of ^{125}I, ^{14}C and ^{35}S.

44.   (New) A pharmaceutical composition comprising

a protein complex, which comprises an oligomeric form of α-lactalbumin (MAL) and a cytotoxin, wherein said cytotoxin is active in the nucleoplasm of cells, and

a pharmaceutically acceptable carrier or excipient.

45.   (New) A pharmaceutical composition comprising

a protein complex, which comprises an oligomeric form of α-lactalbumin (MAL) and a labeling agent, and

a pharmaceutically acceptable carrier or excipient.

46.   (New) A pharmaceutical composition according to claim 44, wherein said composition is in the form of a solution or cream for topical use.

47.   (New) A pharmaceutical composition according to claim 45, wherein said composition is in the form of a solution or cream for topical use.

48.   (New) A method of treating cancer comprising administering to a patient in need of such treatment an effective amount of a protein complex according to claim 37.

49.   (New) A method of diagnosing cancer in a patient comprising administering to a patient an effective amount of a protein complex according to claim 41, and detecting said labeling agent in the nucleus of a cell.

50.   (New) A method of diagnosing cancer comprising applying to cells which are suspected of being cancerous an effective amount of a protein complex according to claim 41, and observing penetration of said agent into the nucleus of the cells, wherein penetration into the nucleus is indicative of cancer.

51.   (New) A method according to claim 50, wherein said method is carried out *in vitro* on a sample removed from a patient.

52.   (New) A method of detecting a cancer cell comprising applying to a cell

which is suspected of being cancerous, a protein complex according to claim 41, and

observing penetration of said complex into the nucleus of the cell, wherein penetration into

the nucleus is indicative of a cancer cell.--